



## 4.2 Health workforce distribution

Access to healthcare also depends on the availability and distribution of the health workforce and is assessed here by three indicators:

- Density and distribution of practising physicians (excluding stomatologists) (A-10)
- Density and distribution of practising nurses (A-11)
- Density and distribution of practising dentists (including stomatologists) (A-12)

The density alone nevertheless poorly reflects the real workforce (e.g. for physicians, all of them performing more than one clinical act are included in the headcounts). To overcome this problem, results are also expressed in full time equivalent (FTE). Because information on their time of work is unavailable, FTE for physicians in Belgium is calculated as the ratio between individual revenue (determined based on reimbursed RIZIV – INAMI expenditure) of the medical specialist compared to the P50 (median) revenue/RIZIV – INAMI expenditure of the same specialists between 45-55 years old (N.B. all results above 1 are limited to 1). These FTE should therefore be interpreted with caution, especially for 2020 because the COVID-19 pandemic impacted the median income/reimbursed expenditure and therefore the resulting FTE estimates. For nurses, FTE are slightly more precise as for a part of them (employed nurses), FTE are based on activity rate.<sup>k</sup> The number of FTE physicians and dentists acceding to the agreement on national tariffs (conventioned physicians and dentists) is also presented.

It should also be noted that potential (future) shortage identified in the sustainability section on health workforce capacity will negatively influence accessibility to a qualified health workforce.

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<sup>k</sup> But for self-employed nurses, FTE are also based on expenditure (see the technical sheet)

### Practising physicians<sup>l</sup>

In 2021, there were 41 761 professionally active physicians (3.6 per 1000 population), 37 504 practising physicians (3.2 per 1000 population, +11% since 2011), and 25 462 FTE practising physicians (2.2 per 1000 population, +9.3% since 2011).

Belgium had a lower density of practising physicians per 1000 population than the EU averages (3.2 compared to 4.0 and 3.8 per 1000 population in 2020 for the EU-14 and the EU-27 averages respectively). The increase between 2010 and 2020 was also lower in Belgium than the EU averages (+9.9% compared to +13.6% and +16.3% for the EU-14 and the EU-27 averages respectively). However, it is important to note that the definition of practising physicians varies between countries and that in a few countries, it corresponds to the number of physicians licensed to practice. It should also be noted that Belgium does not include physicians in training while most other countries do.

Moreover, the distribution of physicians across the country was not uniform. In headcounts, the number of practising physicians per 1000 population was lower in Flanders than in Brussels and Wallonia (but expressed in FTE, the densities were more similar). Disparities between provinces can also be highlighted. For a number of medical specialties, lower densities (in FTE) were mainly observed in the province of Luxembourg and, to a lesser extent, in Hainaut, Limburg, and West Flanders. Conversely, the highest densities were generally observed in Walloon Brabant and Flemish Brabant (which can be explained by the fact that the analysis was mainly based on the physicians' home address rather than on the place of practice, also explaining the lowest density in Brussels in FTE).

Finally, it should be noted that the proportion of physicians who fully or partially acceded to the agreement (conventioned physicians, in FTE) was quite stable (78.9% in 2021) but that important disparities can be highlighted between medical specialties. In 2021, this proportion was especially low for

<sup>l</sup> Excluding stomatologists, see also the section on practising dentists.



dermatologists (21.1%), ophthalmologic surgeons (28.4%), plastic surgeons (30.6%), gynaecologists (41.9%), and orthopaedists (42.6%).

### Practising nurses

The PlanCad project,<sup>59</sup> resulting of a linkage of several administrative databases, allows precise estimation of the number of nurses working in the Belgian labour market (professionally active nurses) and nurses active in the health sector (practising nurses). However, the latest available PlanCad project for nurses is for the year 2018. In 2018, there were 210 507 nurses licensed to practise, 148 782 nurses professionally active on the labour market, and 126 496 nurses practising in the healthcare sector (107 515 in FTE). Based on the assumption that the share of practising nurses among all nurses licensed to practice remained the same between 2018 and 2022, there would be about 137 193 practising nurses (116 607 in FTE) in 2022.

Practising nurses were quite well distributed between regions, with 11.6 (9.7 in FTE), 10.1 (8.9 in FTE), and 10.7 (9.4 in FTE) practising nurses per 1000 population in Flanders, Wallonia and Brussels respectively. It was also quite well distributed between districts, except in some districts around Brussels (Halle-Vilvoorde) or close to the border (Virton and Philippeville), with a density below 5 per 1000 population. The density of practising nurses in the German Community seemed also lower, i.e. 7.0 (5.4 in FTE) practising nurses per 1000 population but this is an estimate based on the place of residence.

The number of practising nurses per 1 000 population in Belgium increased from 9.6 in 2010 to 11.1 (9.8 in FTE) in 2018 and was above the EU-27 and EU-14 averages (8.1 and 9.5 per 1000 population, respectively in 2018, in headcount). The increasing trend was also observed in other European countries but was higher in Belgium (+15.4% between 2010 and 2018 in headcount) vs +4.5% for EU-27 and +6.2% for EU-14). International comparisons on practising nurses must nevertheless be used with caution as definitions differ between countries. Moreover, numbers expressed in FTE would give a better picture of the real situation, assuming that this would be based on the same methodology.

The higher number of nurses in Belgium should also be balanced by the fact that Belgium has a lower density of physicians and a higher density of hospitals (requiring more nurses). So, even with this comparatively high number, recent KCE surveys have showed that the number of patients / residents per nurse in hospitals and nursing homes remain too high compared to quality standards.<sup>60, 61</sup>

### Practising dentists

To allow for international comparison, the ISCO-08 definition of dentists is used. The number of practising dentists therefore also include stomatologists. In 2021, there were 8 926 practising dentists (6 478.8 in FTE) and only half of them acceded to the agreement on national tariffs (decreasing trends). The situation was slightly better in Brussels than in Wallonia and Flanders. The analysis per specialty showed that in 2021, the proportion of periodontists and orthodontists that acceded to the agreement was much lower than the proportion of general dentists who did so (11.7% and 2.9% compared to 52.2% respectively). This proportion varied considerably between the provinces and in some of them, no periodontist and orthodontist acceded to the agreement.

The density of 0.8 practising dentists per 1000 population in Belgium was close to the EU-27 average and follows a similar increasing pattern. The average density based on EU-14 countries is more stable (and slightly below Belgium since 2015).

### Conclusion

The availability and the distribution of practising physicians and dentists, and more especially, the share of them acceding to the agreement must be an attention point. In addition, even if the density of nurses is high and well distributed, some sectors (hospitals and nursing homes) seem below quality standard. The interested reader can now find more up to date data on physicians and dentists on the [healthybelgium.be website](https://healthybelgium.be).


**Table 8 – Accessibility: Indicators on health workforce distribution**

(ID)	Indicator	Score	Belgium	Year	Flanders	Wallonia	Brussels	Source	EU-14	EU-27
<b>A-10</b>	Practising physicians									
	Number per 1000 population	●*	3.2	2021	<b>3.0</b>	3.4	4.0	RIZIV – INAMI		
			3.2	2020				OECD	4.0	3.8
	Number per 1000 population, in FTE	●*	2.2	2021	2.2	2.2	2.1	RIZIV – INAMI	-	-
	Number per 1000 population acceding to the agreement on national tariffs, in FTE	●*	1.7	2021	1.7	1.8	1.7	RIZIV – INAMI	-	-
<b>A-11</b>	Practising nurses									
	Number per 1000 population	●*	11.1	2018	11.6	10.1	10.7	FPS Public Health, OECD	9.5	8.1
	Number per 1000 population, in FTE	●*	9.4	2018	9.7	8.9	9.4	FPS Public Health		
<b>A-12</b> <b>NEW</b>	Practising dentists	●*								
	Number per 1000 population	●*	0.8	2021	<b>0.7</b>	<b>0.7</b>	1.2	RIZIV – INAMI		
			0.8	2020				OECD	0.7	0.8
	Number per 1000 population, in FTE	●*	0.6	2021	<b>0.6</b>	<b>0.5</b>	0.7	RIZIV – INAMI		
	Number per 1000 population acceding to the agreement on national tariffs, in FTE	●*	0.3	2021	<b>0.2</b>	<b>0.3</b>	0.4	RIZIV – INAMI		

Good (●), average (●) or poor (●) results, globally stable (ST), improving (+) or trend not evaluated (empty).

For contextual indicators (no evaluation): upwards trend (↗), stable trend (→), downwards trend (↘), no trend (C). \*While the number of healthcare professionals is considered as contextual, the evaluation here exceptionally is based on the distribution. It should also be noted that more up to date data are available here: <https://www.healthylbelgium.be/en/medical-practice-variations/overall-context-of-practice-variations/healthcare-providers>